

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	Add new vendor, and correct table I. Editorial changes throughout.	9 JUL 04	K. Cottongim

Prepared in accordance with ASME Y14.100

Selected item drawing

REV STATUS OF PAGES	REV	A	A	A	A	A	A										
	PAGES	1	2	3	4	5	6										
PMIC N/A	PREPARED BY Dennis L. Cross							DEFENSE SUPPLY CENTER, COLUMBUS COLUMBUS, OH									
Original date of drawing 31 October 2002	CHECKED BY Andrew R. Ernst							TITLE RESISTOR, CHIP, FIXED, FILM, LOW AND HIGH VALUES, STYLE 1206									
	APPROVED BY Kendall A. Cottongim																
	SIZE A	CODE IDENT. NO. 037Z3						DWG NO. 02008									
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1. SCOPE

1.1 Scope. This drawing describes the requirements for a .120 by .060 chip resistor with low and high resistance values, a wide range of characteristics and tolerances.

1.2 Part or Identifying Number (PIN). The complete PIN is as shown in the following example:

<u>02008-</u>	<u>K</u>	<u>1R00</u>	<u>F</u>	<u>B</u>
_____	_____	_____	_____	_____
Drawing number	Characteristic (see 3.3.1)	Resistance (see 3.3.2)	Tolerance (see 3.3.3)	Termination (see 3.3.4)

2. APPLICABLE DOCUMENTS

2.1 Government documents.

2.1.1 Specifications and standards. The following specifications and standards form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DODISS) and supplement thereto, cited in the solicitation (see 6.2).

DEPARTMENT OF DEFENSE SPECIFICATIONS

- MIL-PRF-55342 - Resistors, Chip, Fixed, Film, Nonestablished Reliability, Established Reliability, Space Level, General Specification for.
- MIL-PRF-55342/7 - Resistors, Chip, Fixed, Film, Nonestablished Reliability, Established Reliability, Space Level, Style 1206.

DEPARTMENT OF DEFENSE STANDARDS

- MIL-STD-202 - Test Methods for Electronic and Electrical Component Parts.
- MIL-STD-690 - Failure Rate Sampling Plans and Procedures.
- MIL-STD-790 - Established Reliability and High Reliability Qualified Products List (QPL) Systems for Electrical, Electronic, and Fiber Optic Parts Specifications.

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch/> or www.dodssp.daps.mil or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3.1 Item requirements. The individual item requirements shall be in accordance with MIL-PRF-55342, and as specified herein.

3.2 Interface and physical dimensions. The resistor shall meet the interface and physical dimensions as specified in MIL-PRF-55342/7 and herein (see figure 1).

3.3 Electrical characteristics.

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3.3.1 Characteristic. Resistors are available in characteristics H, K, M, L, and N in accordance with the resistance tolerances and resistance values as specified in table I and paragraph 6.5 herein.

3.3.2 Resistance. The nominal resistance is expressed in ohms and is identified by four digits; the first three digits represent significant figures and the last digit specifies the number of zeros to follow. When the values of resistance are less than 100 ohms, or when fractional values of an ohm are required, the letter "R" is substituted for one of the significant digits to represent the decimal point. When the letter "R" is used, succeeding digits of the group represent significant figures.

3.3.2.1 Resistance range. The resistance range shall be 1 ohm to 10 Megohms in accordance with the characteristics and resistance tolerances as specified in table I and paragraph 6.5 herein.

3.3.3 Resistance tolerance. Resistors are available in resistance tolerances F(± 1 percent), G(± 2 percent), J(± 5 percent), and K(± 10 percent) in accordance with the characteristics and resistance values as specified in table I and paragraph 6.5 herein.

TABLE I. Resistance temperature characteristic, resistance, and resistance tolerance.

Characteristic	PPM	Tolerance		
		Resistance range		
		1 percent (F)	2 and 5 percent (G, J)	10 percent (K)
H	50	1 ohm thru 5.49 ohms	1 ohm thru 5.1 ohms	1 ohm thru 4.7 ohms
K	100	5.76 Megohms thru 10 Megohms	6.2 Megohms thru 10 Megohms	6.8 Megohms thru 10 Megohms
M	300	1 ohm thru 10 Megohms		
L	200			
N	400			

3.3.4 Termination material. Termination material shall be in accordance with MIL-PRF-55342, code letter B.

3.3.5 Power rating. The power rating for all characteristics shall be 250 milliwatts at 70°C derated to zero power at +150°C.

3.3.6 Voltage rating. The maximum continuous working voltage shall not exceed 100 volts.

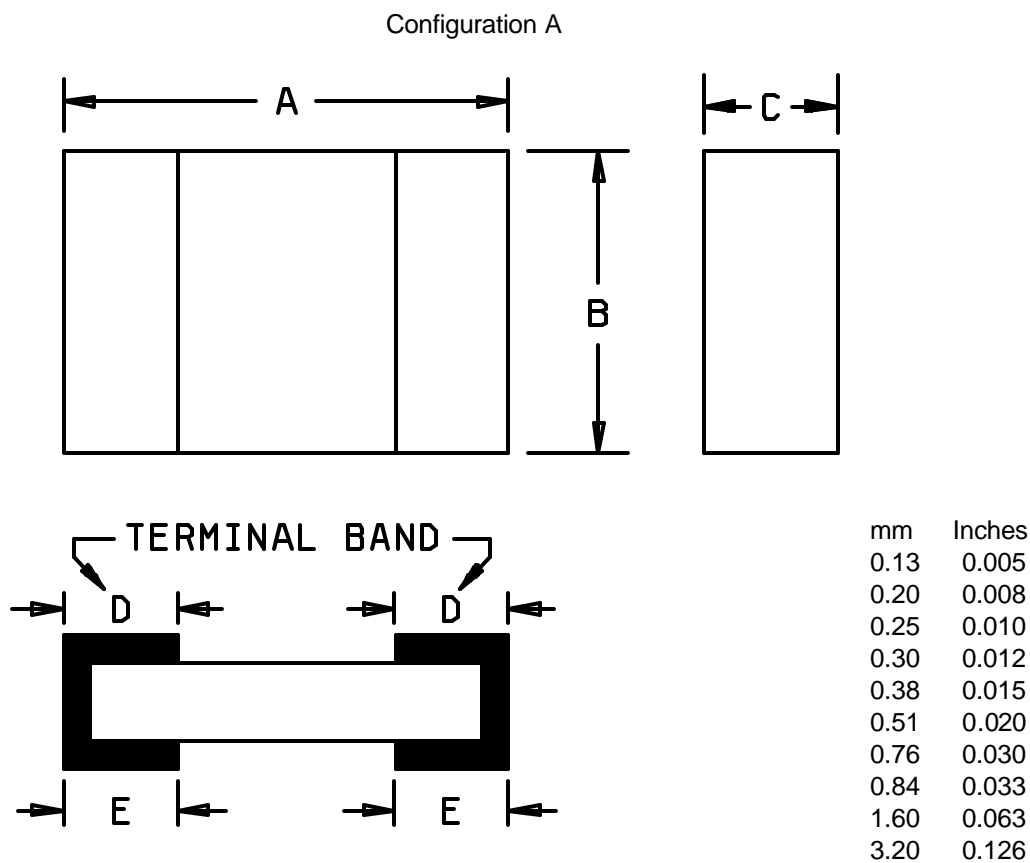
3.4 Marking. Marking is not required on the resistor; however, each unit package shall be marked with the PIN assigned herein (see 1.2), vendor CAGE code, and date and lot codes.

3.5 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible provided that the material meets or exceeds the operational and maintenance requirements and promotes economically advantageous life cycle costs.

3.6 Certificate of compliance. A certificate of compliance shall be required from manufacturers requesting to be a suggested source of supply.

3.7 Workmanship. Resistors shall be uniform in quality and free from any defects that will affect life, serviceability, or appearance.

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Configuration B

Configuration	Dimension A mm	Dimension B mm	Dimension C mm	Dimension D mm	Dimension E mm
A	3.20 \pm 0.13	1.60 \pm 0.13	0.30/0.76	0.51 \pm 0.13 -0.25	N/A
B	3.20 \pm 0.20	1.60 \pm 0.13	0.38/0.84	0.51 \pm 0.13 -0.25	0.51 \pm 0.13 -0.25

NOTES:

1. Dimensions are in millimeters.
2. Inch equivalents are given for general information only.
3. The pictorial view of the styles above are given as representative of the envelope of the item. Slight deviations from the outline shown, which are contained within the envelope, and do not alter the functional aspects of the device are acceptable.
4. Configuration A is not applicable to this document.

FIGURE 1. Chip resistor.

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4. VERIFICATIONS

4.1 Product assurance program. The product assurance program specified in MIL-PRF-55342 and maintained in accordance with MIL-STD-790 is not applicable to this document.

4.2 Product level qualification. The product level qualification specified in MIL-PRF-55342 and MIL-STD-690 is not applicable to this document.

4.3 Conformance provisions.

4.3.1 Inspection of product for delivery. Inspection of product for delivery shall consist of group A inspection and group B inspection of MIL-PRF-55342.

4.3.2 Certification. The procuring activity may accept a certificate of compliance in lieu of group B inspection.

4.5 Visual and mechanical examination. Resistors shall be examined to verify that the materials, design, construction, physical dimensions, marking, and workmanship are in accordance with the applicable requirements of MIL-PRF-55342.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature that may be helpful, but is not mandatory.)

6.1 Intended use. Chip resistors are intended for use in thick or thin film circuits where microcircuitry is intended. Chip resistors can also be used in surface mount applications.

6.2 Ordering data. The contract or purchase order will specify the following:

- a. Complete PIN (see 1.2).
- b. Requirements for delivery, one copy of the conformance inspection data that parts have passed conformance inspection, with each shipment of parts by the manufacturer.
- c. Packaging requirements. (e.g., Electrostatic discharge (ESD) sensitivity) (see 5.1).
- d. Whether the manufacturer performs the group B inspection or provides a certificate of compliance (see 4.3.2).

6.3 Electrostatic charge. Under several combinations of conditions, these resistors can be electrically damaged, by electrostatic charges, and drift from specified value. Users should consider this phenomena when ordering or shipping resistors. Direct shipment to the Government is controlled by MIL-DTL-39032 which specifies a preventive packaging procedure.

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6.5 User of record. Coordination of this document for future revisions are coordinated only with the suggested sources of supply and the users of record of this document. Requests to be added as a recorded user of this drawing may be achieved online at resistor@dla.mil or in writing to: DSCC-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0553 or DSN 850-0553.

6.6 Suggested sources of supply. Suggested source of supply is listed herein. Additional sources will be added as they become available. Assistance in the use of this drawing may be obtained online at resistor@dla.mil or contact DSCC-VAT, Post Office Box 3990, Columbus, OH 43218-3990 or by telephone (614) 692-0553 or DSN 850-0553.

DSCC drawing PIN 02008-*****	Vendor similar designation or type number 1/	Vendor CAGE	Vendor name and address
Char. K, and M, res. values 1 ohm thru 5.49 ohms and 5.76 Megohms thru 10 Megohms, res. tol. 1 pct.; res. values 1 ohm thru 5.1 ohms and 6.2 Megohms thru 10 Megohms, res. tol. 2, 5, pct.; res. values 1 ohm thru 4.7 ohms and 6.8 Megohms thru 10 Megohms, res. tol. 10 pct. Char. L and N, res. value 1 ohm thru 10 Megohms, res. tol. 1, 2, 5, and 10 pct.	WA87 PS-*****-NS62P WA87 PS-*****-NS62	50316	Mini-Systems, Inc. 20 David Rd. North Attleboro, MA 02760-2102
Char. K, and M, res. values 1 ohm thru 5.49 ohms and 5.76 Megohms thru 10 Megohms, res. tol. 1 pct.; res. values 1 ohm thru 5.1 ohms and 6.2 Megohms thru 10 Megohms, res. tol. 2, 5, pct.; res. values 1 ohm thru 4.7 ohms and 6.8 Megohms thru 10 Megohms, res. tol. 10 pct. Char. L and N, res. value 1 ohm thru 10 Megohms, res. tol. 1, 2, 5, and 10 pct.	H1206CPX***** (DEC008)	56235	State of the Art, Inc. 2470 Fox Hill Rd. State College, PA 16803-1797
Char. H, K, and M, res. values 1 ohm thru 5.49 ohms, res. tol. 1 pct.; res. values 1 ohm thru 5.1 ohms, res. tol. 2, and 5 pct. Char. L, res. values 1 ohm thru 1 Megohm, res. tol. 1, 2, and 5 pct.	W1206RV-0*-*****	57027	TT Electronics / IRC 4222 S. Staples St. Corpus Christi, TX 78411-2702
Char. M, res. values 1 ohm thru 5.49 ohms and 5.76 Megohms thru 10 Megohms, res. tol. 1 pct.; res. values 1 ohm thru 5.1 ohms and 6.2 Megohms thru 10 Megohms, res. tol. 2, 5, pct.; res. values 1 ohm thru 4.7 ohms and 6.8 Megohms thru 10 Megohms, res. tol. 10 pct. Char. N, res. value 1 ohm thru 10 Megohms, res. tol. 1, 2, 5, and 10 pct.	RCWP-1206-14	91637	Vishay Dale Electronics, Inc. 2300 Riverside Blvd Norfolk, NE 68701-2242
Char. M, res. values 1 ohm thru 5.49 ohms, res. tol. 1 pct. Char. L, res. values 10 ohm thru 10 Megohms, res. tol. 1, 2, 5, & 10 pct. Char. N, res. values 1 ohm thru 10 Megohms, res. tol. 1, 2, 5, & 10 pct.	L1206XYYYYZ	57498	Vishay Thin Film 2160 Liberty Drive Niagara Falls, NY 14304

1/ Parts must be purchased to the DSCC PIN to assure that all performance requirements and tests are met.

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